PAGE 02/02

SEQUENOM SAN DIEGO

SATENT & THE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

HELLER BHRMAN VEICE & MCAULIFFE

Applicant: ! Köster et al.

Serial No.: 1 08/933.792

Filing Date: Sept. 19. 1997

Far:

COMPOSITIONS AND METHODS FOR IMMOBILIZING NUCLEIC

ACIDS TO SOLID SUPPORTS

INVENTOR'S VERIFIED STATEMENT OF FACTS UNDER 37 C.F.R. \$1.48(a)

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

i, G. Scott Higgins, hereby declare and state:

- I am not a joint inventor of the claimed subject matter of the abovecaptioned application.
- (2) Through error, I was joined as an inventor at the time the application was filed.
- Error in inventorship in the above captioned application occurred without deceptive intention on my part.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and bellef are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or Implicanment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jappardize the validity of the application or any patent issued thereon.

Date: 14 Hay 1999



DECLARATION FOR PATENT APPLICATION

As a below-named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

COMPOSITIONS AND METHODS FOR IMMOBILIZING NUCLEIC ACIDS TO SOLID SUPPORTS

the specification of which

- () is attached hereto.
- (X) was filed by an authorized person on my behalf on September 19, 1997 as Application Serial No. <u>08/933,792</u>.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate listed below and so identified, or §365(a) of any PCT international application that designated at least one country other than the United States of America, listed below, and I have also identified below any foreign application for patent or inventor's certificate or PCT international application on this invention filed by me or my legal representatives or assigns and having a filing date before that of the application on which priority is claimed.

Priority Claimed

<u>Number</u>

Country

Day/Month/Year Filed

(Yes or No)

N/A

I hereby claim benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

Application Serial No.

Filing Date

N/A

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:





Application Serial No. Filing Date Status

08/746,036 11/06/1996 Pending

PCT Application No. Filing Date Status

N/A

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I hereby appoint the following attorneys and agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith and request that all correspondence and telephone calls in respect to this application be directed to Stephanie Seidman, HELLER, EHRMAN, WHITE & McAULIFFE

Attorney	Reg. No.
Stephanie Seidman Paula K. Schoeneck Barry S. Wilson	33,779 39,362 39,431
Dale L. Rieger	43,045

Address for correspondence:

Stephanie Seidman

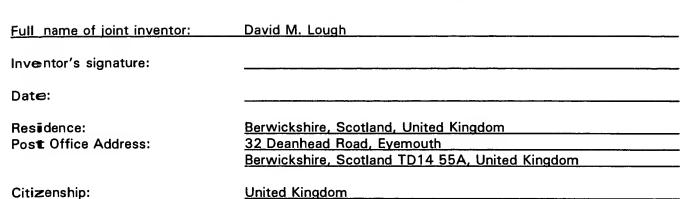
Heller, Ehrman, White & McAuliffe 4250 Executive Square, 7th Floor

Λ

La Jolla, CA 92037

Inventor's signature: Date: Residence: Poet Office Address: La Jolla, California, U.S.A. 8636-C Via Mallorca Drive	Full name of joint inventor:	Hubert Köster	
Residence: La Jolla, California, U.S.A. Poet Office Address: 8636-C Via Mallorca Drive	Inventor's signature:	- Call	
Poet Office Address: 8636-C Via Mallorca Drive	Date:		
ges s via manorda brive			
Citizenship: Germany		La Jolla, California 92037, U.S.A.	







DECLARATION FOR PATENT APPLICATION

As a below-named-inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

COMPOSITIONS AND METHODS FOR IMMOBILIZING NUCLEIC ACIDS TO SOLID SUPPORTS

the specification of which

() is attached hereto.

(X) was filed by an authorized person on my behalf on September 19, 1997 as Application Serial No. <u>08/933,792</u>.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate listed below and so identified, or §365(a) of any PCT international application that designated at least one country other than the United States of America, listed below, and I have also identified below any foreign application for patent or inventor's certificate or PCT international application on this invention filed by me or my legal representatives or assigns and having a filing date before that of the application on which priority is claimed.

Priority Claimed

<u>Number</u>

Country

Day/Month/Year Filed

(Yes or No)

N/A

I hereby claim benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

Application Serial No.

Filing Date

N/A

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:





Application Serial No.	Filing Date	<u>Status</u>
08/746,036	11/06/1996	Pending
PCT Application No.	Filing Date	Status

N/A

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued

I hereby appoint the following attorneys and agents, with full power of substitution and revocation, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith and request that all correspondence and telephone calls in respect to this application be directed to Stephanie Seidman, HELLER, EHRMAN, WHITE & McAULIFFE

Attorney	Reg. No.
Stephanie Seidman	33,779
Paula K. Schoeneck	39,362
Barry S. Wilson	39,431
Dale L. Rieger	43,045

Address for correspondence:

Stephanie Seidman

Heller, Ehrman, White & McAuliffe 4250 Executive Square, 7th Floor

La Jolla, CA 92037

Full name of joint inventor:	Hubert Köster
Inventor's signature:	
Date:	
Residence:	La Jolla, California, U.S.A.
Post Office Address:	8636-C Via Mallorca Drive
Citizenship:	La Jolla, California 92037, U.S.A. Germany





Ful I name of joint inventor:	David M. Lough
Inv entor's signature:	Said hough
Date:	4/7/99
Residence: Post Office Address:	4994 McGill Way San Diego, California 92130-2700
Citi zenship:	United Kingdom



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Köster et al.

Serial No.:

08/933,792

Filing Date:

September 19, 1997

For:

COMPOSITIONS AND METHODS FOR IMMOBILIZING NUCLEIC ACIDS

TO SOLID SUPPORTS

CONSENT OF ASSIGNEE TO CORRECT INVENTORSHIP UNDER 37 C.F.R. §1.48(a)

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

SEQUENOM, INC., a corporation organized under the laws of the State of Delaware, with a current business address of 11555 Sorrento Valley Road, San Diego, California 92121, U.S.A., is the Assignee of the entire right, title and interest in the above-captioned patent application. A Certificate under 37 C.F.R. §3.73(b) accompanies this Consent.

Sequenom, Inc. hereby consents to correction of inventorship in the above-captioned application, deleting Dirk Reuter and G. Scott Higgens as inventors.

The undersigned (whose title is supplied below) is empowered to act on behalf of the Assignee.

SEQUENOM INC.

Date: MAV 23, 1899

Name:_

Title:







IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Köster et al.

Serial No.:

08/933,792

Filing Date:

September 19, 1997

For:

COMPOSITIONS AND METHODS FOR IMMOBILIZING NUCLEIC ACIDS

TO SOLID SUPPORTS

CERTIFICATE UNDER 37 C.F.R. § 3.73(b)

Assistant Commissioner for Patents Washington, D.C. 20231

Dear Sir:

SEQUENOM, INC., a corporation organized under the laws of the State of Delaware, with a current business address of 11555 Sorrento Valley Road, San Diego, California 92121, U.S.A., is the Assignee of the entire right, title and interest in the above-captioned patent application by virtue of an Assignment from the inventors. A copy of the Assignment from the inventors to SEQUENOM, INC. is attached hereto.

The undersigned (whose title is supplied below) is empowered to act on behalf of the Assignee.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

SEQUENOM, INC.

Date: 1/1/2 13 19

Stephen Zaniber

Secretary





UNITED STORES DEPARTMENT OF COMMERCE Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER

ASSISTANT SECRETARY AND COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

SEPTEMBER 30, 1998

PTAS

HELLER EHRMAN WHITE & MCAULIFFE
DALE L. RIEGER
4 250 EXECUTIVE SQUARE
STUITE 700
LA JOLLA, CA 92037



UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/22/1998

REEL/FRAME: 9320/0718

NUMBER OF PAGES: 8

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

KOSTER, HUBERT

DOC DATE: 01/12/1998

ASSIGNOR:

LOUGH, DAVID M.

DOC DATE: 05/14/1998

ASSIGNOR:

REUTER, DIRK

DOC DATE: 11/14/1997

ASSIGNOR:

HIGGINS, SCOTT

DOC DATE: 06/02/1998

ASSIGNEE:

SEQUENOM, INC.

11555 SORRENTO VALLEY ROAD SAN DIEGO, CALIFORNIA 92121

SERIAL NUMBER: 08933792

PATENT NUMBER:

FILING DATE: 09/19/1997

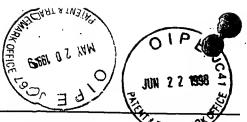
ISSUE DATE:



9 320/0718 PAGE 2

STEVEN POST, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS







07-23-1998

Atty. Dkt. No. 7352-2003B

Form PTO-1595

RECORDATION PATE	CONTS ONLY
To the Honorable Commissioner of Patents a original documents or copy thereof.	**************************************
1. Name of Conveying party(ies):	2. Name and address of receiving Party(ies)
KÖSTER, Hubert LOUGH, David M. REUTER, Dirk HIGGINS, Scott	1
Additional name(s) of conveying party(ies) attached? Yes X No	Additional name(s) & address(es) attached? Yes _X No
3. Nature of conveyance:	
X Assignment Merger Security Agreement Change Other	of name
Execution Date: Köster 1/12/98, Lough 5/14	/98, Reuter 11/14/97, Higgins 6/2/98
4. Application number(s) or natent number	er(s): ther with a new application, the execution
A. Patent Application No.(s): 08/933,792	B. Patent No.(s)
Additional numbers a	ttached? Yes _X No
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of Applications and patents involved:1_
Dale L. Rieger HELLER EHRMAN WHITE & McAULIFFE 4250 Executive Square Suite 700 La Jolla, CA 92037	7. Total fee (37 CFR 3.41) \$ 40.00 X Charge to deposit account X Authorized to charge any underpayment to deposit account
	8. Deposit account Number: 08-1641
DO NOT US	E THIS SPACE
9. Statement and signature.	
Dale L. Rieger	the foregoing information is true and correct the original document.
Name of Person Signing Registration No. P43,045	Signature Date
Total number of pages including cover sheet,	attachments, and document: _8_





ASSIGNMENT

I, Hubert Köster, in consideration of One Dollar and other valuable consideration paid to me by SEQUENOM, INC.

a corporation of Delaware, having its principal place of business at 11555 Sorrento Valley Road, Suite C. San Diego, California 92121, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

SEQUENOM, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

Compositions and Methods for Immobilizing Nucleic Acids to Solid Supports described in an application

X Serial No. 08/933,792 filed on September 19, 1997

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And I agree, for myself and my executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And I do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

WITNESS my hand and seal this 12th day of JANUARY 199\\$8

State of CALIFOLVIA)
(SS)
(Sounty of SAN DIE60)

Then personally appeared the above named Hubert Köster and acknowledged the foregoing instrument to be his free act and deed, before me, this 12th day of _______ ANUARY ______ 1997.

E. VICKERY Comm. # 1129646 TARY PUBLIC - CALIFORNIA San Diego County My Comm. Expires March 12, 2001

Notary Public
My commission expires: 3-12-2001





<u>ASSIGNMENT</u>

I, DAVID M. LOUGH, a citizen of the United Kingdom, residing at 32 Deanhead Road, Eyemouth, Berwickshire TD14 55A, Scotland, United Kingdom, for good and valuable consideration, have assigned and do hereby assign to SEQUENOM, INC., a corporation organized under the laws of Delaware, having its principal place of business at San Diego, California, U.S.A., its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter disclosed in the application for Letters Patent of the United States Serial No. No. 08/933,792 entitled:

COMPOSITIONS AND METHODS FOR IMMOBILIZING NUCLEIC ACIDS TO SOLID SUPPORTS

which was filed on September 19, 1997, and in and to all Convention and Treaty rights of all kinds, in all countries throughout the world, for all such subject matter, including the right to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise and, in and to, all Letters Patent to be obtained for said subject matter by the above application or any continuation, division, continuation—inpart, extension, conversion to 35 USC 111(b) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent.

I agree to do all acts and sign all documents necessary to secure, defend and maintain all said Letters Patent and rights, including any continuations, divisionals, reissues, renewals and extensions, and request issuance of all said Letters Patent to the above Assignee in accordance with this assignment.

DATE: 5/14/98

DAVID M. LOUGH



ASSIGNMENT Köster et al.

WI	יואד	7.SS	ED:

DATE: 5/14/98

WITNESSED:

DATE: <u>5/14/18</u>





ASSIGNMENT

I, Dirk Reuter, in consideration of One Dollar and other valuable consideration paid to me by SEQUENOM, INC.

a corporation of Delaware, having its principal place of business at 11555 Sorrento Valley Road, Suite C, San Diego, California 92121, the receipt of which is hereby acknowledged, do hereby sell, assign and transfer unto said

SEQUENOM, INC.

its successors and assigns, the entire interest for the United States of America and all foreign countries including all rights of priority under the International Convention for the Protection of Industrial Property in a certain invention or improvement in

Compositions and Methods for Immobilizing Nucleic Acids to Solid Supports described in an application

X Serial No. 08/933,792 filed on September 19, 1997

in the United States Patent and Trademark Office, and in all Letters Patent of the United States and all foreign countries which may or shall be granted on said invention, or any parts thereof, or on said application, or any divisional, continuing, reissue or other applications based in whole or in part thereon. And I agree, for myself and my executors and administrators, with said corporation and its successors and assigns but at its or their expense and charges, hereafter to execute all applications, amended specifications, deed or other instrument, and to do all acts necessary or proper to secure the grant of Letters Patent in the United States and in all other countries to said corporation, with specifications and claims in such form as shall be approved by the counsel of said corporation and to vest and confirm in said corporation, its successors and assigns, the legal title to all such patents.

And I do hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said corporation, its successors and assigns.

	By: Dirk Reuter	
State of)	
)ss	

Notary Public
My commission expires:



Documents-Register No. 2231/1997

This is to certify that before me

Börries de Grahl

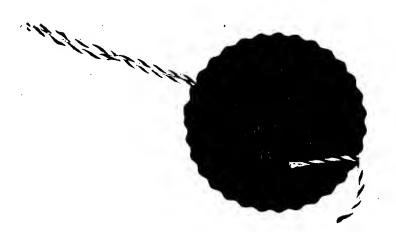
Max-Brauer-Allee 50, D-22765 Hamburg,

a Notary Public in and for the Free and Hanseatic City of Hamburg, Federal Republic of Germany, duly admitted and sworn, appeared this 14th day of November, 1997 in person

Dr. Dirk Josef Reuter, born 07. April 1957, residing at: Zylberbergstraße 1, 22457 Hamburg,

identified by Indenty Card, the notary, and acknowledged that he signed and executed the foregoing instrument, as his free and volontary act and deed, for the uses and purposes therein set forth.

Given under my hand and Notarial seal, this 14th day of November, 1997.



STN3(A)

(Notary Public





Atty. Docket No. 7352-2003B

33 CASTLEVIEW A PAISLET PAZ 855

UK

ASSIGNMENT

Glidt Ut 1998

I, SCOTT HIGGINS, a citizen of the United Kingdom, residing at Haselweg 1, 22880 Wedel, Germany, for good and valuable consideration, have assigned and do hereby assign to SEQUENOM, INC., a corporation organized under the laws of Delaware, having its principal place of business at San Diego, California, U.S.A., its successors, assigns and legal representatives, the entire right, title and interest in and to all subject matter disclosed in the application for Letters Patent of the United States Serial No. 08/933,792 entitled:

COMPOSITIONS AND METHODS FOR IMMOBILIZING NUCLEIC ACIDS TO SOLID SUPPORTS

which was filed on September 19, 1997, and in and to all Convention and Treaty rights of all kinds, in all countries throughout the world, for all such subject matter, including the right to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise and, in and to, all Letters Patent to be obtained for said subject matter by the above application or any continuation, division, continuation-inpart, extension, conversion to 35 USC 111(b) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent.

I agree to do all acts and sign all documents necessary to secure, defend and maintain all said Letters Patent and rights, including any continuations, divisionals, reissues, renewals and extensions, and request issuance of all said Letters Patent to the above Assignee in accordance with this assignment.

DATE: 2 JUNE 1998

SCOTT HIGGINS



ASSIGNMENT Köster et al.



Atty. Docket No. 7352-2003B

WITNESSED:

DATE: 2nd June 1998

SUSAN COCHRANE.
[PRINTED NAME OF WITNESS]

WITNESSED:

DATE: 2" June 1998

PRINTED NAME OF WITNESS]